Art as Environmental Inquiry

Art as Environmental Inquiry: Collaborative and Technologically Driven Approaches

ABSTRACT

As forms of critical exploration, art works are often inspired by the rigours and questioning of scientific inquiry, while retaining art's traditional concern for creative freedom. As such, they position creative imagining, intuition, and subjectivity not only as parallel and complementary to scientific objectivity, but arguably essential to the concerns of landscape research. If anything, they are effective at illuminating the complex knot of collaborative and technologically driven approaches.

Through laboratory-style and field-based experiments, the work of two art practices, Collins-Goto and London Fieldworks, explore the technological simulation of natural phenomena. Their projects encompass collaboration, testing, and revealing. Using long-term systematic investigation, they illuminate how environmental interpretation is contingent, requiring time and study.

In Eden3, Collins-Goto worked with scientists, computer programmers and musicians to customise a portable monitoring station Plein Air that combined the traditional artist's easel with digital sensors and transmitters. Eden3 operates as a mobile laboratory that reveals the biogenic interaction of trees within the atmospheric chemistry of cities. While informing their on-going inquiry into empathetic human/nature relationships, the information gained provides a platform by which to engage environmental planners and policy makers in leveraging change in land management and urban development.

London Fieldworks have incorporated smart materials, brain imaging software, industrial robotics, and biomonitors in their projects. Early works, such as Syzgy (1999), Polaria (2002) and Little Earth (2005), explored the subjective gap between scientific observation and natural phenomena, using technology to reveal processes of natural and human physiology. More recently, Outlandia, an off-grid architectural hut set in a remote forest, utilised satellite broadband technology to produce Remote Performances (2014), a work that highlighted local aural and linguistic traditions as forms of environmental knowledge.

Keywords: Art, Collaboration, Simulation, Subjectivity, Inquiry

INTRODUCTION

While it can be argued that cultural authority currently resides with science and not with contemporary art (Warr 2005), science may be seen to operate in self-imposed limitations, where 'objectivity is a fantasy that our culture has heavily invested in'(Hiller 1996 p210). Many artists are inspired by the rigors and questioning of science, while seeing it as part of their creative freedom to measure using their own scale and methods. This may lead us to consider that while art is not equivalent to science, it can operate as a complementary strand of cultural interest that attends to its own agendas.

Two art practices in the United Kingdom, Collins-Goto and London Fieldworks, offer a basis to explore how art can approach a complex knot of belief, desire, creativity and knowledge. They draw attention to the play, the intuition, whims and idiosyncrasies in knowledge production (Warr 2001), while highlighting that subjectivity shapes science, just as it shapes art (Warr 2005). These practices represent a critical shift in the definition of art; to abandon the fixation on object-centered experience towards experimental approaches that explore the human inter-relationship with nature (Goto Collins & Collins 2012). Four aspects of their practice are potential useful for landscape research: instrumentation, inquiry, integration, and impact.

ART AND INSTRUMENTATION

In this work traditional artist's tools have given way to new modes of technologically driven instrumentation. This is expressed in Collins-Goto project Eden3, where a customized portable monitoring station, Plein Air, uses the traditional artist's easel as a prop for new tools such as digital sensors and transmitters (Fig 1.). In Eden3, Collins-Goto worked with scientists, computer programmers and musicians to develop the mobile laboratory to reveal the biogenic interaction of trees within the atmospheric chemistry of cities.

London Fieldworks incorporate a range of advanced technologies in their projects, including smart materials, brain imaging software, industrial robotics, and biomonitors. Their project Little Earth (2005) offers a commentary on the historical turning point in science from observation with the naked eye to approaches increasingly dependent on instrumentation and technological simulation (Gilchrist & Joelson 2005). Through the invention of their own instrument, the Little Earth installation (Fig 2.), the artists re-enact the invention of idiosyncratic instrumentation with reference to the work of the early electromagnetic scientists Wilson and Birkeland.

As with landscape research, these artists indicate the need for levels of invention and improvisation, where instrumentation is intertwined with experimentation. They demonstrate that instrumentation and simulation can reduce the vast scale of natural phenomena to a human scale, where it can be seen, played with and manipulated (Gilchrist & Joelson 2005). While Little Earth highlights an increasing distance between the observer and the raw materials or phenomena under examination, Eden3 emphasises how technology can intensify our awareness of subtle phenomena, bringing attention to atmospheric conditions on which we are interdependent (Goto Collins & Collins 2012).

ART AND INQUIRY

Through instrumentation artists can be seen to explore traditional subject matter, such as the natural world, with increasing depth and complexity. In doing so, traditional art practices of marking and making give way to technologically driven experiments that aim to reveal the detail, scale or complexity of living systems (Goto Collins & Collins 2012). While this may be seen as a system-based approach with an ecological/material focus, for both practices it forms the basis of-going inquiry into the essence and values that underpin environmental interpretation.

While Collins-Goto work through instrumentation to reveal atmospheric and biomorphic conditions, their practice is framed as an on-going investigation into empathy to draw attention to the ethics and values that shape human relations to nature (Goto Collins & Collins 2012). Future Forest (2015) involved a creative inquiry into how ecological and cultural values historically shaped the form and function of the Black Wood of Rannoch in the Scottish Highlands (Fig 3.). By mapping how the forest has evolved as a culturally intrinsic landscape,

their aim is to question how its future management demands considerations beyond those solely scientific (Goto Collins, Collins & Edwards 2014).

On-going enquiry by London Fieldworks explores the ways that the data of natural phenomena is made manifest and interpreted in both science and art (Gilchrist & Joelson 2012). In Syzygy (1999) they worked with Imperial College and Cranfield University to develop a smart-materials kite sculpture (Fig 4.) to record weather patterns, which were then correlated with brain activity through EEG monitors of invited writers and musicians in the same environment. The work was situated in the remote Sanda Island in Scotland with the results transmitted to a digital sculpture in the ICA gallery in London. Syzygy personifies the artists' concerns for making metaphorical linkages between technological and human responses to the environment, seeing their work as poetic expressions of how art, like science, functions to process and distribute information (Metzger 1969).

ART AND INTEGRATION

Integration refers a particular shift in defining art, where the audience is no longer regarded as spectators but instead selective participants and co-creators, representing the closing of a gap between artists and audience. This shift requires participants to respond both physically, intellectually as well as emotionally, which in turn reflects how environment must not be construed as our material surroundings alone but rather as the socio-physical context which we inhabit and in which we participate (Berleant 2005).

In Eden3 Collins-Goto worked with musicians, philosophers, technologists and scientists, seeing this as a process of shared authorship to monitor and reveal the processes of respiration and photosynthesis in trees. Related to their on-going inquiry into empathy, this collaborative approach provided Collins-Goto with a basis for addressing ethical ideas. By engaging participants in the process the art work effectively becomes a backdrop to catalyse dialogue. In this way the art work shapes an integrated process, between artist, participants and production, to understanding collaboratively.

London Fieldworks see the notion of ecology as a complex inter-working of social, natural, and technological worlds (Gilchrist & Joelson 2005), using collaborations, especially with scientists, to explore ideas around the authenticity of mediated experience of place. In Polaria (2001) they traveled to Northern Greenland to record intense daylight with a spectroradiometer and physiological responses using a range of biomonitors (Fig 5.). The fieldwork was presented through an interactive daylight chamber that further correlated the bodily responses of participants. By examining the interaction of embodied consciousness with the natural environment, their intention was to demonstrate how our experience of the environment is dependent on our interactions with it.

These works highlight the combination of factors that shape experience, including participants, site and cultural context, allied with the complexity of environment factors—and call for integrated approaches to environmental interpretation. While Collins-Goto seek an essentially dialogic process to share and co-evolve knowledge, Polaria poetically plays with the gaps between measurement and experience, where both embodiment and instrumentation constrain the way we interact in the world, an approach that can result in the dis-integration and vulnerability of communication and meaning.

ART AND IMPACT

Both practices produce art construed as explorations into human relations through participatory structures. This reflects art critic Grant Kester's idea that as in our experience of natural environments, art can be structured as an aesthetic experience we are 'immersed in' rather than looking 'at' (Kester 2011). These practices also explore how the art work is itself 'immersed' in a cultural context and the need to best position the work for its most effective impact.

Collins-Goto's Future Forest project is based on a collaborative partnership with scientists and conservation and planning groups, believing that their creative inquiry can directly inform the current management of the forest. As such, the project is not only a dialogue about a forest landscape, but with the people who live and work in it (Fig 6.). The artists undertook field explorations, participatory workshops and archival surveys as a comprehensive study to identify

a ‘re-imagined’ forest based on alternative approaches to current management. The results of their study were synthesized into a final report in a form of attuned to the conservationists and physical scientists they hope to develop influence.

In a similar context, London Fieldworks have worked with the Nevis Landscape Partnership, a consortium of conservation organizations, to construct Outlandia (Fig 7.), an off-grid field station set in a remote forest in the Highlands of Scotland. As an artist-led project it provides a platform for creativity in the natural environment, while offering a basis for exchange with foresters, ecologists, and planners about the development of the surrounding landscape.

In both projects the artists see themselves as facilitating exchange through creative projects that act as platforms for engagement between differing interests groups. While the impact of these projects is left open-ended and remains to be seen, we can identify what lies beyond the production of an artwork itself, taking a dialogical approach that seeks local and consensual transformation. It could be argued that by appreciating this kind of art practice we become more aware of, and thus more inclined to value, the contingent nature of environmental inquiry and interpretation.

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LIST OF FIGURES